

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/030,451
Attorney Docket No.: A7728

Turning to the merits of the Office Action, claims 1-20 remain pending in the application. Claim 1 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Fejer et al. (U.S.P. 4,650,322, hereafter “Fejer”). Claims 1, 9-10, 12 and 19 have been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop (U.S.P. 4,849,640) in view of Osborne (U.S.P. 4,069,080). Claim 2 has been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne and further in view of Ortiz (U.S.P. 4,958,900) or Kato (U.S.P. 4,566,762). Claim 3 has been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne and further in view of Petisce (U.S.P. 5,015,068, hereafter “Petisce ‘068”) in view of Yamada (U.S.P. 6,033,829). Claims 4 and 14 have been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne and further in view of Petisce ‘068 and Yamada and Tausch (U.S.P. 6,078,713). Claims 5 and 15 have been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne, Petisce ‘068, Yamada and further in view of Akerman (EP 0 202 803 A2). Claims 6 and 13 have been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne and further in view of Petisce (U.S.P. 5,000,772, hereafter “Petisce ‘772”). Claims 7, 11 and 18 have been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne and further in view of Akerman. Claim 8 has been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne, Petisce ‘772, Tausch and Field (U.S.P.

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/030,451
Attorney Docket No.: A7728

6,195,486). Claim 16 has been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne and further in view of Field. Claims 17 and 20 have been rejected under 35 U.S.C. § 103 as being unpatentable over Kruishoop in view of Osborne and further in view of Petisce '068, Yamada and Field. Applicant submits the following arguments in traversal of the prior art rejections.

The Examiner rejected claim 1 as being anticipated Fejer, et al. (U.S. Patent No. 4,650,322). Fejer relates to the physical measurements of wires and fibers (see column 1, lines 8-11), whereas the present invention relates to an apparatus for photocuring a coating on a fiber. The apparatus shown in Figures 2A and 2B does not disclose all the technical features as recited in present claim 1. As disclosed in column 2 , lines 55-65, the He-Ne laser 20 provides a laser beam expander 22, and the expanded beam from expander 22 is then directed to a cylindrical doublet lens 24 which transversely focuses the laser beam on the fiber 26. This embodiment does not disclose the “first lens” in combination with the “concave optical element”, as recited in present claim 1. In addition, the apparatus according to Fejer is not suitable for photocuring a coating on the fiber because the energy of the laser beam from 24 is too high which will cause that excess heat is generated due to local focusing of the laser beam, resulting in a coating with an undesirable modulus. In addition, the wave length of the He-Ne laser is not suitable for photocuring a coating on a fiber. Though the Examiner indicates that the laser of Fejer would be

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/030,451
Attorney Docket No.: A7728

suitable for curing, it is this speculation that renders the anticipation rejection unsupportable.

Claim 1 clearly specifies photocuring and there is no basis that that the He-Ne laser provides the cure regardless of duration. It is the Examiner's burden to show inherent disclosure, not the Applicant's burden to demonstrate otherwise.

Kruishoop relates to an apparatus for exposing a coating of a UV-curable material on an optical fiber to ultraviolet light (see column 1, lines 11-14). The optical system according to Kruishoop comprises mirror which have, in comparison with an optical system comprising lenses as recited in present claim 1, the advantage that less radiation is absorbed and that the radiation path can be "folded" (see column 2, lines 14-21). One can conclude that the optical system for imaging the lamp L on a fiber comprises the mirrors S1-S6, and not any lenses at all. The absence of lenses has also been confirmed in the claims, especially claim 1 (see column 5, lines 45 and 49).

Osborne relates to a method of bonding together of superposed or contacting sheets of polymeric material (see column 1, lines 7-9). As disclosed in Figure 1, laser beam 20 impinges upon beam expander lens 2, which beam 20 impinges upon converging lens 3 and upon leaving the converging lens 3 the beam 20 is directed upon cylindrical lens 4. After passing through the cylindrical lens 4 the beam 20 assumes its expanded or designated beam 20' whereupon it can be focused upon a surface as line 6. Although this document separately discloses individual

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/030,451
Attorney Docket No.: A7728

elements of claim 1 and claim 12, there is no reason for a person skilled in the art to combine Kruishoop with Osborne in order to arrive at the claimed subject matter. The object of Osborne is to provide a method and apparatus of welding together heat sealable materials with laser energy wherein the laser beam does not have to be moved or scanned across the material to be sealed, or the material does not have to be moved through a stationary beam. Another object of Osborne is to increase the speed of sealing thermoplastic materials with laser beam. These two objects do not have any relationship with Kruishoop. Therefore, the person skilled in the art confronted with the technical problem underlying the present invention will never consult Osborne, because Osborne does not give any hint of the solution of said technical problem. The present invention relates to an apparatus for photocuring a coating and the skilled person in the art will never look for patents or articles in the remote technical field of bonding together superposed sheets of polymeric material in a linear weld. Therefore, the combination of Kruishoop and Osborne fails. Claims 1, 9, 10 and 19 are patentable.

In response to the Examiner's arguments regarding the placement of the lenses on the backside of the target, the Examiner's proffered motivation does not appear in the art, but is only derived from Applicant's own disclosure. The Examiner's reliance on S5-S6 of Kruishoop is incorrect since they do not adequately show the relative position on a backside of a target relative to optical elements. The orientation is lacking due to the mirror implementation. In this regard,

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/030,451
Attorney Docket No.: A7728

the Examiner has not responded to the argument that the claimed orientation would place optical elements in the light travel path H1, H2.

Ortiz, Jr. relates to a holder for a plurality of optical fibers wherein the orientation of the fibers with respect to each other can be adjusted (see column 1, lines 11-15). The object of Ortiz, Jr. is to provide a holder that allows adjustment of the spacing and angle between the fibers and therefore has no relationship with the technical problem underlying the present invention. Although a plano-concave converting lens 42 has been disclosed in column 2, lines 27-30, there is no incentive for the person skilled in the art to consult Ortiz, Jr. for solving the technical problem underlying the invention. The combination of Kruishoop, Osborne and Ortiz, Jr. is a theoretical one and in order to solve the theoretical one and the person skilled in the art would never combine these three U.S. patents in order to sole the technical problem underlying the present invention. Claim 2 is patentable.

Kato relates to an optical system capable of causing the images of objects separate from each other on the optical axis to be formed on the same plane, wherein the converging lens A21 comprises plano-concave lens 21a formed of optical glass and a plano-convex lens 21b formed of quartz, the lenses 21a and 21b being cemented together (see column 5, lines 52-55). Although Kato does not show any relationship with the technical problem underlying the invention, the plano-concave lens 21a is totally different from the plano-concave lens as recited in present

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/030,451
Attorney Docket No.: A7728

claim 2. Therefore, the combination of Kruishoop, Osborne and Kato is not obvious for the person skilled in the art, but has been made by the Examiner according to an academic approach.

Petisce relates to a method for making coated optical fiber wherein in column 5, lines 55-62 has been stated that a magnetic field may be applied to the optical fiber coating. Petisce has already been acknowledged in the present description on page 2, lines 10-17. Petisce does not disclose the technical features as recited in claim 3; and applies a Fusion lamp.

All the other documents cited by the Examiner disclose only one single feature of one of the claims and does not make-up for deficiencies of the primary combination of Kruishoop and Osborne.

With regard to the Examiner's rejection of claim 11 over Akerman, the Examiner cites vague teachings of "a long distance." The generality is insufficient to support a rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/030,451
Attorney Docket No.: A7728

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